Annual Report 2013

Prepared by the Department of Social Services
for the Missouri General Assembly

September 30, 2013

Acknowledgement

This report contains research and analysis completed by Mercer Government Human Services Consulting.

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Introduction and Scope of the Evaluation

The Missouri Department of Social Services is submitting this annual report to the General Assembly on Missouri's program for health care for uninsured children—the Children's Health Insurance Program (CHIP)—as required by Section 208.650 of the Revised Statutes of Missouri. The CHIP program operated as part of a Medicaid Section 1115 Healthcare Demonstration Waiver program (1115 Waiver) between September 1, 1998 and September 30, 2007. The 1115 Waiver originally expanded eligibility to uninsured children, adults leaving welfare for work, uninsured custodial parents, uninsured non-custodial parents and uninsured women losing their Medicaid eligibility 60 days after the birth of their child.[1] Effective September 2007, Missouri's CHIP program began operating as a combination Medicaid/CHIP program, Mo HealthNet for Kids.

The Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA) reauthorized CHIP until FFY 2013. The Patient Protection and Affordable Care Act (PPACA), enacted in 2010, appropriated funding to CHIP through FY 2015 and provided for states a 23% increase in the CHIP match rates, with a cap of 100%, for fiscal years 2016 through 2019. PPACA maintenance of effort requirements for the CHIP program require states to maintain income eligibility thresholds and not impose any procedures, methodologies or other requirements that make it more difficult for people to apply for or renew their CHIP eligibility.

Missouri provides presumptive eligibility for children in families with income of up to 150% of the federal poverty level (FPL). The table below lists the income eligibility thresholds for CHIP.

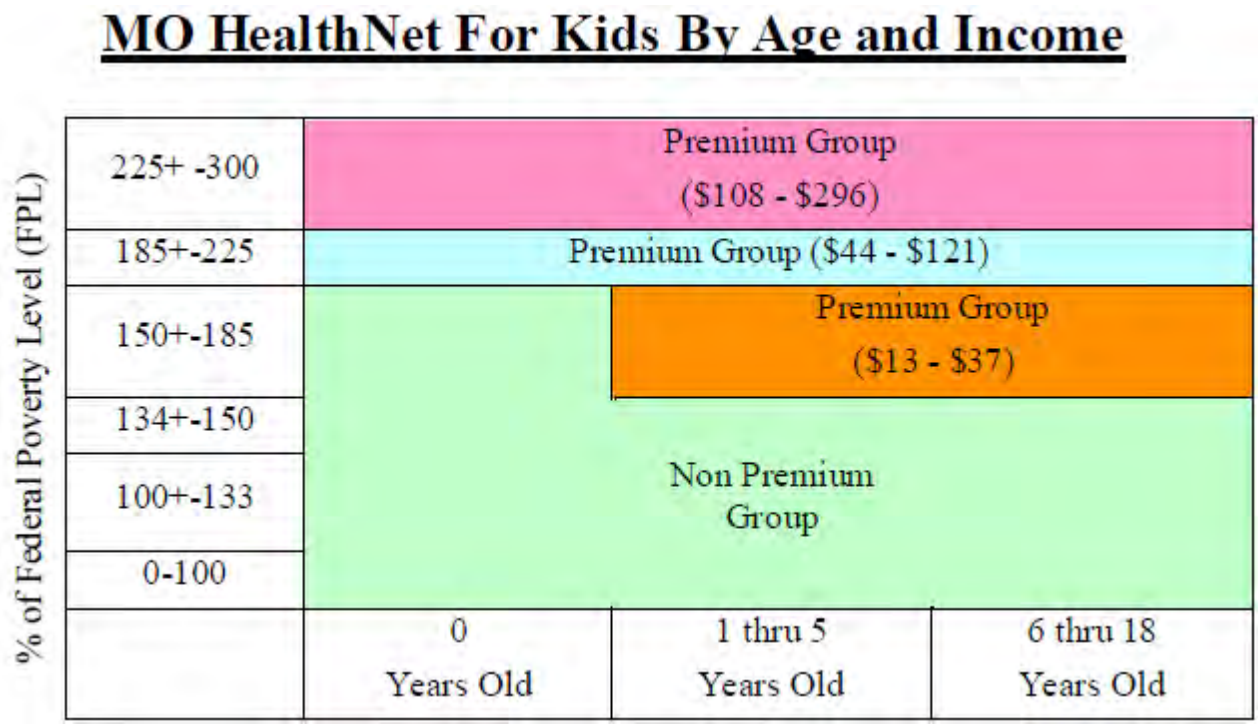
Program Age Group	0-100% FPL	101-133% FPL	134%-150% FPL	151%-185% FPL	186%-300% FPL
Children 0-1	Medicaid (Non-Premium)	Medicaid (Non-Premium)	Medicaid (Non-Premium)	CHIP (Non-Premium)	CHIP (Premium)
Children 1- 5	Medicaid (Non-Premium)	Medicaid (Non-Premium)	CHIP (Non-Premium)	CHIP (Premium)	CHIP (Premium)
Children 6-18	Medicaid (Non-Premium)	CHIP (Non-Premium)	CHIP (Non-Premium)	CHIP (Premium)	CHIP (Premium)

Beginning September 2005, co-pays were eliminated in lieu of graduated premiums for all families with incomes greater than 150% of FPL. Premiums are based on income and effective July 1, 2013 ranged from $13 per month for a family size of 1 with income more than 150% FPL to $296 per month for a family size of 6.[2] Premium rates are adjusted annually in July of each year and exist in three different bands: (i) 150-185% FPL, (ii) 185-225% FPL, and (iii) 225-300% FPL. In no case shall the family be charged more than 5% of the family's gross income and the premium invoicing system is designed to not invoice a monthly premium in excess of 5% of the family's gross annual income divided by twelve (12).

Missouri has a grace period for non-payment of premiums of 30 days, but for families with income over 225% FPL, there is a lock-out period of 6 months after disenrollment due to non-payment of premiums after the grace period. For these families, repayment of outstanding premiums is also required.

[1] Service delivery to children began September 1, 1998. Service delivery for adults began February 1, 1999.
[2] Accessed at http://www.dss.mo.gov/fsd//iman/fhc/0900-000-00-appendix_e.pdf.

Eligibility and premiums for the CHIP program (for family size 1 to 6) are summed up in the graphic below produced by MO HealthNet:[3]



The CHIP program has the following strategic goals:

- Reduce the number of children in Missouri without health insurance coverage;
- Increase access to health care;
- Increase the number of children in Missouri who have access to a regular source of healthcare coverage;
- Improve the health of Missouri's medically uninsured children through the use of preventive care.

This report focuses on three questions which are outlined in the original RFP to evaluate the CHIP program and are as follows:

Study Question 1: **Has CHIP improved the health of Missouri's children and families?**

This will include:

- The number of children participating in the program in each income category;
- The effect of the program on the number of children covered by private insurers;
- The effect of the program on medical facilities, particularly emergency rooms;
- The overall effect of the program on the health care of Missouri residents;
- The overall cost of the program to the state of Missouri; and
- The methodology used to determine availability for the purpose of enrollment, as established by rule.

[3]Accessed at http://dss.mo.gov/mhd/providers/pdf/puzzledterm.pdf.

Study Question 2: What is the impact of CHIP on providing a comprehensive array of community-based wrap-around services for seriously emotionally disturbed children and children affected by substance abuse?

Study Question 3: What is the effect of CHIP on the number of children covered by private insurers? Did the expansion of health care coverage to children whose gross family income is above 185% of the federal poverty level (FPL) have any negative effect on these numbers?

Terminology

Throughout this report, we use the following terminology:

- MO HealthNet or Medicaid refers to the Title XIX state plan Medicaid population.
- CHIP refers to the targeted low-income expansion program for children. The different eligibility groups for MO HealthNet and CHIP are shown in the chart on page 4.

Data Sources and Approach

This report uses previously aggregated, readily available data from the state of Missouri and the following sources:

- Health Status Indicator Rates – Department of Health and Senior Services (DHSS), Community Health Information Management and Epidemiology (CHIME), Calendar Year 2011;
- Monthly Management Report, Table 7 – Department of Social Services (DSS), Fiscal Year 2013;
- U.S. Census Data, 2000-2011;
- Claims data from calendar year 2012;
- Eligibility data from state fiscal year 2013 and calendar year 2012; and
- Journal articles and health publications produced by the federal government and national health policy researchers (credited in the footnotes).

The most recent data available from these sources was used in compiling this year's report. To facilitate the comparison of longitudinal data across this year's report and previous years' reports, the same data sources have been used.

Study Question 1

Has CHIP improved the health of Missouri's children and families?

1. What is the number of children participating in the program in each income category?

For the most recent twelve-month period (July 2012 through June 2013) CHIP program enrollment ranged from under 70,000 to more than 72,500 participants (See table below):[4]

CHIP Participants by Premium and Non-Premium Categories

Month	Year	Up to 150% FPL (Non-Premium)	151% to 300% FPL (Premium)	Total
July	2012	45,098	25,287	70,385
August	2012	45,772	25,312	71,084
September	2012	45,789	25,303	71,092
October	2012	46,028	25,797	71,825
November	2012	46,066	26,003	72,069
December	2012	45,838	26,162	72,000
January	2013	45,828	26,460	72,288
February	2013	45,790	26,445	72,235
March	2013	45,931	26,663	72,594
April	2013	44,618	25,508	70,126
May	2013	44,847	25,526	70,373
June	2013	44,471	25,383	69,854

Source: Department of Social Services, Monthly Management Reports, Table 7
(Numbers are counts of unique enrollees at the beginning of the month)

2. What is the effect of the CHIP program on the number of children covered by private insurers?

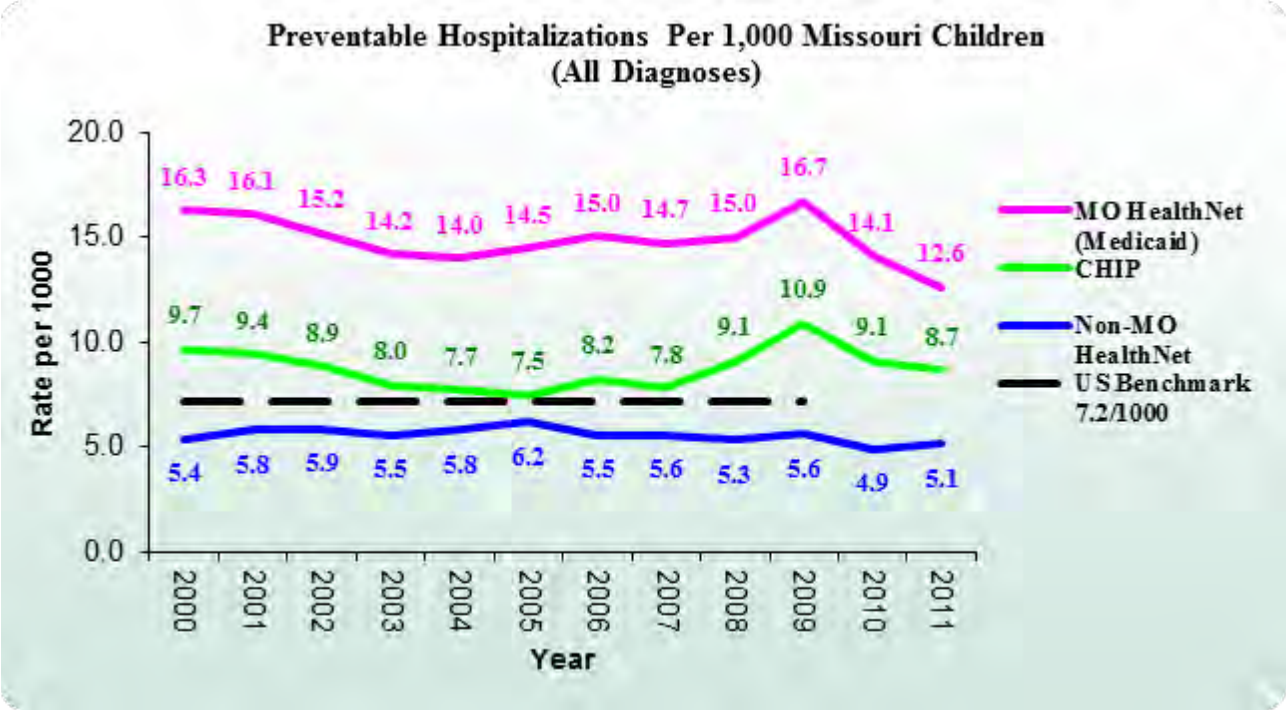
Over the last five years, the rate of employer sponsored insurance (ESI) and private insurance has remained basically stable, even as it has fallen in the rest of the country. Missouri's uninsured population was higher than the national average in 2011, after being below the national average for previous years[5]. Missouri's rate of public insurance coverage for children (Medicaid and CHIP) is far below the national averages. This means that it is highly unlikely that any crowd-out is occurring as there has not been a major growth in public insurance coverage, even with the recession. This question is explored in greater detail in study question 3 later in the report.

[4] Note: This number reflects total enrollment for the entire month and is taken from Table 7 of the Monthly Management Report.
[5] See Study Question 3 for data and further details.

3. What is the effect of the CHIP program on medical facilities, particularly emergency rooms?[6]

Preventable Hospitalizations

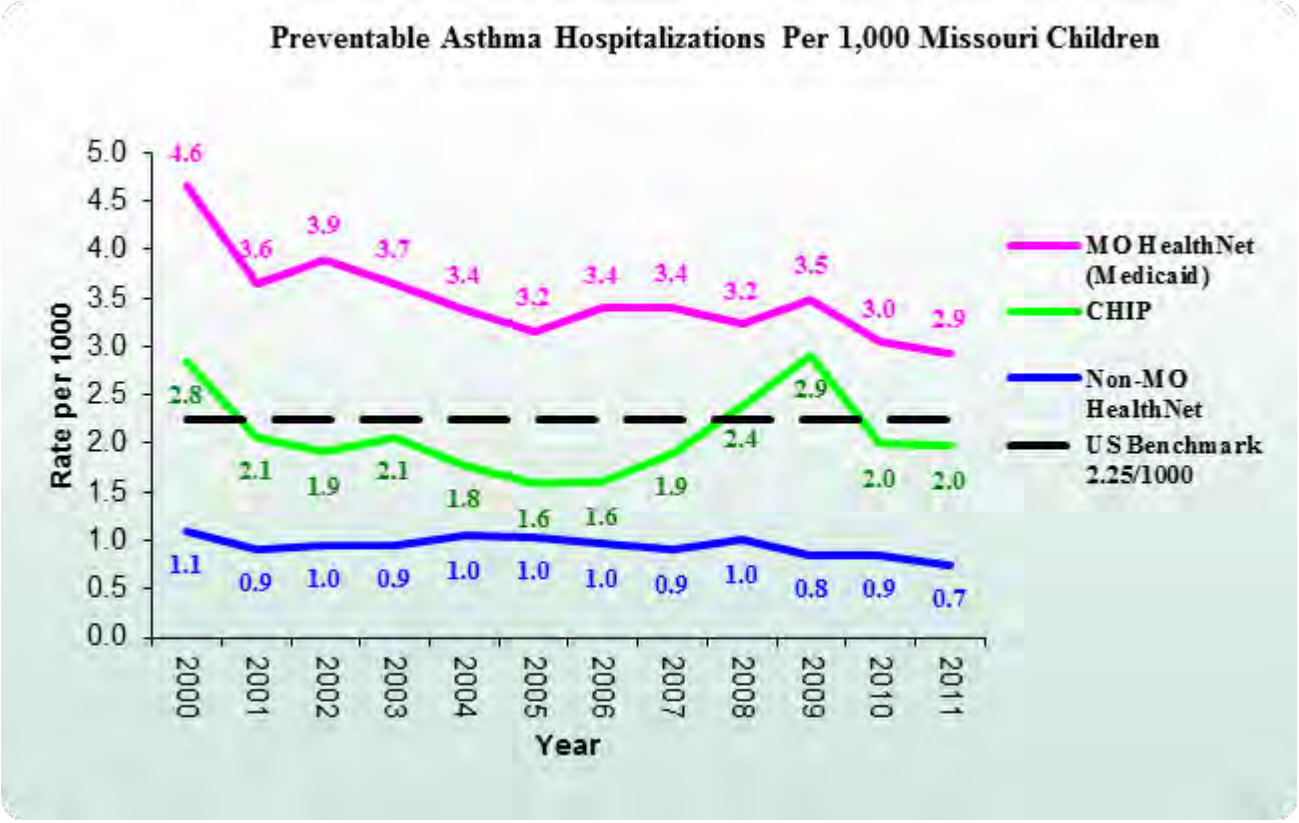
- From 2000 to 2011, preventable hospitalizations for the CHIP population decreased by approximately 11%. During this time, preventable hospitalizations for the MO HealthNet (Medicaid children) population decreased by over 22% while the preventable hospitalizations for the non-MO HealthNet group decreased by 4.4%.
- In 2011, the CHIP group's rate of 8.7 preventable hospitalizations per 1,000 children was 21% higher than the national benchmark of 7.2 per 1,000.



[6] For this question, hospital data from calendar year 2011 was used, which was the most recent set of data available from DSS.

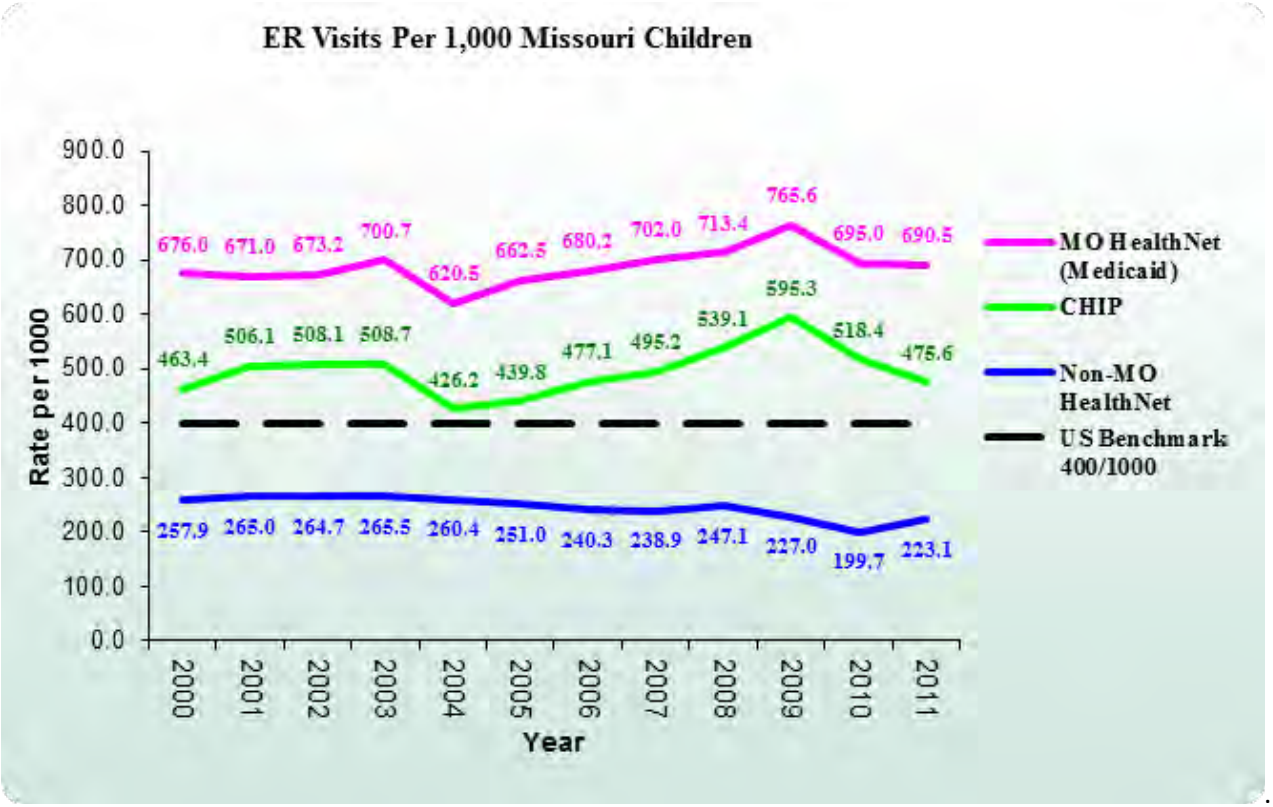
Preventable Asthma Hospitalizations

- From 2000 to 2011, preventable hospitalizations due to asthma for the CHIP population decreased by over 30%. During this time, preventable hospitalizations due to asthma for the MO HealthNet (Medicaid children) population decreased by over 37% while the preventable asthma hospitalizations for the non-MO HealthNet group decreased by over 32%.
- In 2011, the CHIP group's rate of 2.0 preventable asthma hospitalizations per 1,000 children was over 12% lower than the national benchmark rate of 2.25 preventable asthma hospitalizations.



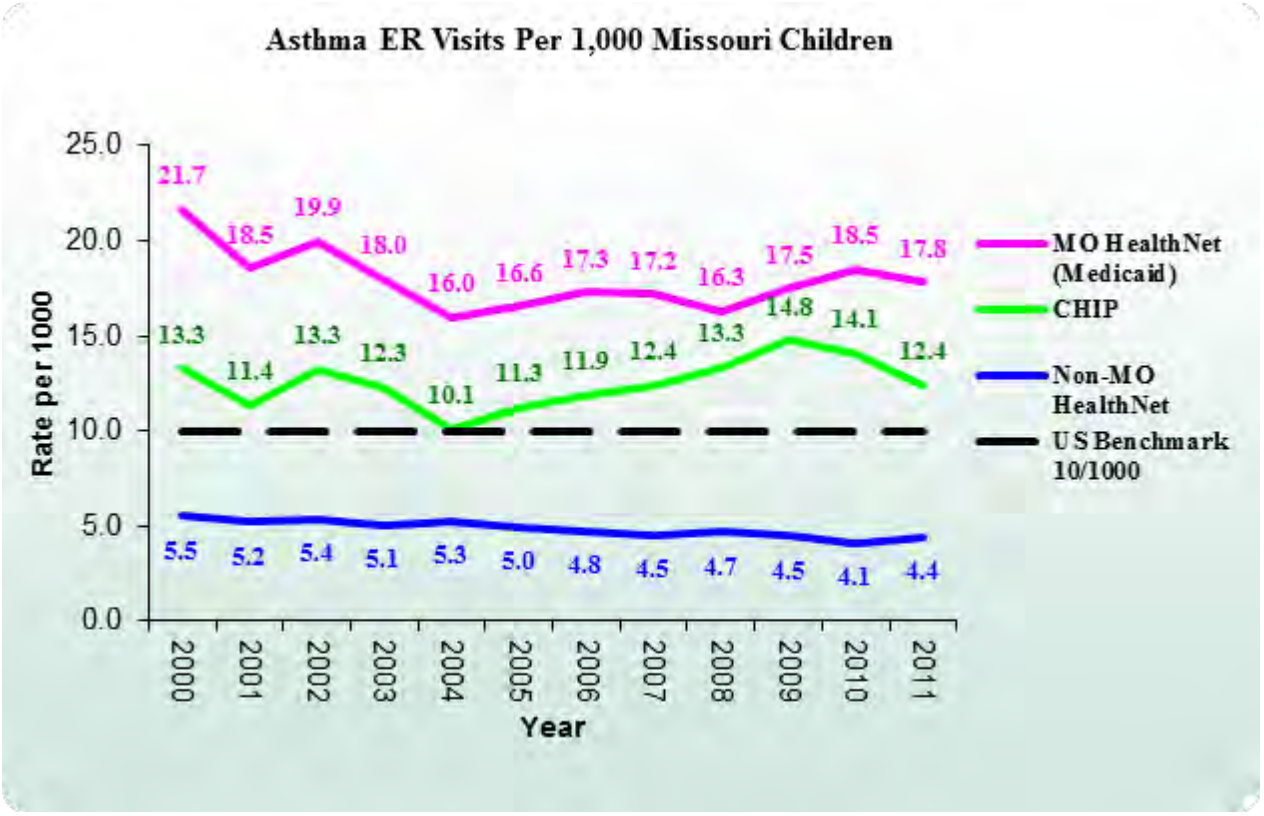
Emergency Room (ER) Visits

- From 2000 to 2011, ER visits for the CHIP population increased by almost 3%. During this time, ER visits for the MO HealthNet (Medicaid children) population increased by over 2% while the ER visits for the non-MO HealthNet group decreased by over 13%.
- In 2011, the CHIP group's rate of 475.6 ER visits per 1,000 children was over 19% higher than the national benchmark rate of 400 ER visits.



Asthma ER Visits

- From 2000 to 2011, asthma ER visits for the CHIP population decreased by almost 7%. During this time, asthma ER visits for the MO HealthNet (Medicaid children) population decreased by almost 18% while the asthma ER visits for the non-MO HealthNet group decreased by almost 20%.
- In 2011, the CHIP group rate of 12.4 asthma ER visits per 1,000 children was 24% higher than the national benchmark rate of 10 Asthma ER visits per 1,000 children.



The data shows a decrease in all four indicators for the CHIP population when comparing 2011 to 2010. This is encouraging because it continues the positive multi-year trends in each indicator. A change in policy that may have continued to influence this positive effect is the 2009 requirement that managed care organizations (MCOs) obtain National Committee for Quality Assurance (NCQA) accreditation at a level of "accredited" or better for their MO HealthNet product by October 1, 2011. While causality cannot be proved, it is plausible that this incentive and the success of the MCOs in planning for and achieving initial and continued accreditation are linked to the improvements in the indicators in the reports.

A summary of the indicators from 2011 is presented in the following table. Detailed data by region and by year is included as Appendix I to this report.

Summary of 2011 Indicators for Missouri Children Under 19 Per 1,000 Children

	CHIP	MO HealthNet (Medicaid)	Non-MO HealthNet (Non-Medicaid)	National Benchmark
Preventable Hospitalizations	**8.7**	**12.6**	**5.1**	**7.2**
Preventable Asthma Hospitalizations	**2.0**	**2.9**	**0.7**	**2.3**
ER Visits	**475.6**	**690.5**	**223.1**	**400.0**
Asthma ER Visits	**12.4**	**17.8**	**4.4**	**10.0**

Data Sources: DHSS; Benchmark: Kozak, Hall and Owings (preventable hospitalizations), Healthy People 2000 (preventable asthma hospitalizations), CDC's Health, United States, 2005 (ER visits), CDC, NCHS Health E-Stats (ER Asthma Visits)

4. What is the overall effect of the CHIP program on the health care of Missouri residents?

Studies analyzing the impact of health care coverage on children's health show that children who have insurance have better health outcomes than uninsured children. Though the studies are not specific to the state of Missouri, they show the benefits to children of being enrolled in the CHIP program.

A 2010 issue brief prepared by the Mathematic Policy Research shows the impact of having insurance versus not having insurance on specific health services and conditions:[7]

- Uninsured young children have lower immunization rates than insured children.
- Uninsured children are 70 percent less likely than insured children to receive medical care for common childhood conditions, such as sore throat, or for emergencies, such as a ruptured appendix.
- When hospitalized, uninsured children are at greater risk of dying than children with insurance.
- Parents of uninsured children are more likely to report unmet need for mental health services for their children.
- Uninsured children are also less likely to receive treatment for chronic conditions such as diabetes and asthma.
- Uninsured children have less access to a usual source of care, community-based services, and services to make transitions to adulthood.

A 2012 report published by the Urban Institute for the Medicaid and CHIP Payment and Access Commission (MACPAC)[8] found that for almost every measure of access to health care nationwide, children in CHIP had substantially better access to care than uninsured children and almost equal access to children with employer sponsored insurance. Compared to uninsured children, children on CHIP were more likely to have a usual source of care, had greater access to specialists, were less likely to have unmet needs to due to costs or experience delays in receiving care. The experience of children in CHIP was similar to that of children in ESI, once adjusted for demographics, with similarly high rates of a usual source of care in addition to being less likely to have delayed medical care due to costs.

In another study published in 2010, researchers at Johns Hopkins Children's Center analyzed data from more than 23 million children's hospitalizations from 1988 to 2005 across 37 states. This study found that uninsured children were 60 percent more likely to die when hospitalized for all causes as compared with insured children (including Medicaid/CHIP and private insurance). The authors found that when you compare death rates by underlying disease, uninsured children had an increased rate of death independent of their medical condition, which increased their risk of dying by 60 percent as compared to those insured. The researchers concluded that at least 1,000 hospitalized children die each year due to being uninsured.

[7] Mathematica Policy Research, Inc: How Does Insurance coverage improve Health Outcomes?, Bernstein, Chollet and Peterson, April 2010.
[8] Urban Institute, National Findings on Access to Health Care and Service Use for Children Enrolled in Medicaid or CHIP, Kenney and Coyer, March 2012.

5. What is the overall cost of the CHIP program to Missouri?[9]

The CHIP program is funded through federal and state appropriations (both through general state revenue and other state agency dollars).[10] In FY 2013, the federal share of the CHIP program expenditures was 72.96%.[11] Actual expenditures for FY 2013 are provided below.

CHIP FY 2013 Expenditures	
State	$27,758,255
Federal	$125,688,849
Other	$19,438,506
Total	$172,885,610

6. What is the methodology used to determine availability for the purpose of enrollment?

13 CSR 70-4.080, State Children's Health Insurance Program, is the Missouri rule that establishes the methodology to determine availability for enrollment.[12]

The eligibility provisions for families with gross income of more than 150% of FPL are:

- Children must not have health insurance for the six months prior to the application.
- If health insurance was dropped within the six months prior to application, prospective participants must wait six months after coverage was dropped to be eligible. The waiting period does not apply to children who lose coverage due to an involuntary loss of employment by their parents, a new position for a parent with a new employer that does not offer coverage, expiration of COBRA coverage, or lapses of coverage due to lifetime maximums or pre-existing conditions.
    - Any child identified as having special health care needs, defined as a condition which left untreated would result in the death or serious physical injury of a child, that does not have access to affordable employer-subsidized health care insurance will be exempt from the requirement to be without health care coverage for six months and the 30-day waiting period in order to be eligible for services, as long as the child meets all other qualifications for eligibility. Special healthcare needs are established based on a written statement from the child's treating physician.
- Parents/guardians of uninsured children must certify the child does not have access to affordable employer-sponsored health care insurance or other affordable available coverage.

In addition to these provisions, the following rules apply to premium payments:

- Children in families with gross incomes of more than 150% but less than 225% of FPL are eligible for coverage once a premium has been received. Eligibility for the program may begin at the beginning of the month; however, coverage cannot begin until the premium has been received. See the chart on page 5 for the premium categories and amounts.
- Children in families with gross incomes of more than 225% and up to 300% of FPL are eligible 30 calendar days after the receipt of the application or when the premium is received, whichever is later. The thirty (30) day waiting period is waived for a child with special health needs, but the premium must still be received.

[9] For this question, financial data from fiscal year 2013 was used.
[10] Other sources of state funding include the Pharmacy Rebate Fund, FRA Fund, Health Initiative Fund, Life Sciences Research Fund, and the Premium Fund. $966,104 in funding was paid out of other appropriations from IGT Safety Net Hospitals, Women's Health Services, and the MO HealthNet Supplemental Pool.
[11] Federal Matching Rate available at http://www.gpo.gov/fdsys/pkg/FR-2011-11-30/html/2011-30860.htm.
[12] This regulation can be found online at http://www.sos.mo.gov/adrules/csr/current/13csr/13c70-4.pdf.

- The 6 month waiting period and 30 calendar day delay are not applicable to a child already participating in the program when a parent's income changes.
- Total aggregate premiums cannot exceed 5% of the family's gross income for a 12-month period.
- Total assets for parents or guardians must be below $250,000 to be eligible for CHIP coverage.
- Premiums must be paid prior to delivery of service.
- Premiums will be updated annually and take effect on July 1 of each calendar year.

How are premiums set?	
Income Category	**Monthly Premium Calculation**
(1) More than 150% and up to and including 185% FPL	Premium = 4% of monthly income for the family size.
(2) More than 185% and up to and including 225% FPL	Premium = 8% of the monthly income for the family size plus the premium calculated in category 1.
(3) More than 225% and up to 300% FPL	Premium = 14% of the monthly income for the family size plus the premiums calculated in categories 1 and 2.

Study Question 2[13]

What is the impact of CHIP on providing a comprehensive array of community-based wrap-around services for seriously emotionally disturbed children and children affected by substance abuse?

Wraparound services are a class of treatment and support services provided to a seriously emotionally disturbed (SED) child and/or the child's family with the intent of facilitating the child's functioning and transition towards a better mental health state. Wraparound services include family support services, case management, respite care, family assistance, targeted case management, community support services, transportation support, social and recreational support, basic needs support and clinical/medical support.

The Department of Mental Health (DMH) and MO HealthNet have developed joint protocols and guidelines for the provision of wraparound services. DMH provides the funding for the services (either full funding or the state's match). DMH also coordinates and oversees the delivery of these services.

Methodology for Data Analysis

Comparisons of utilization of wraparound services across service delivery systems (i.e., FFS versus managed care) are focused on evaluating whether MCO enrollment impacts which wraparound services are provided and in what manner they are provided. DSS and DMH data on CHIP program eligibility, MCO enrollment and wraparound service utilization beginning January 1, 2012 and ending December 31, 2012 were used in this analysis.

There were 1,355 unique children in the CHIP program population who received wraparound services during the study period. For this analysis, the group was further divided into 506 fee-for-service (FFS) participants and 894 MCO participants; 45 of these received services through both delivery methods at different times during the year and are counted in each category.

The MCOs are not required by contract to provide wraparound services. However, the MCOs do provide these wraparound services when cost effective as a diversion from more intensive levels of care. The average child receiving FFS wraparound services received more services than the average child receiving MCO wraparound services, as illustrated in Chart A on the next page, but both overall received significantly more wraparound services in CY 2012 than in CY 2011. Per policy changes in 2011, DMH has shifted service delivery preferences from targeted case management to community support services and services traditionally reported as targeted case management are now being provided as community support services. This policy change appears to have had the intended result of increasing the amount of services provided; there is a significant increase in units of service per child, accounted for almost entirely in increased community support services. Chart B on the following page shows how the mix of services differed between the FFS and MCO populations. For example, 54.7% of the wraparound services provided to the FFS population consisted of community support services, while these services represented 50.4% of the wraparound services provided to the MCO population.

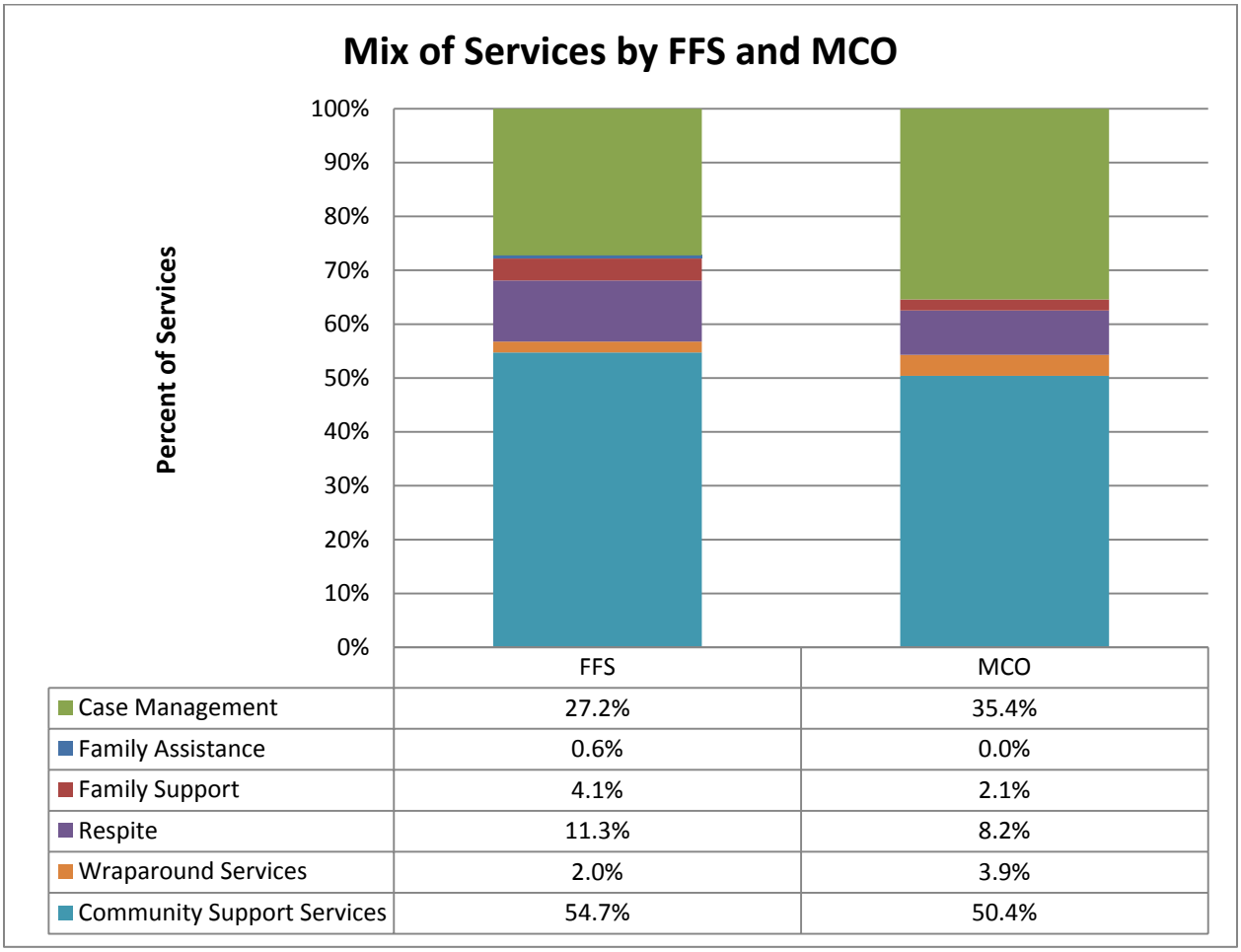
The following charts show utilization rates of wraparound services by type in CY 2012.

[13] For this question, claims and enrollment data from calendar year 2012 was used.

CHART A
Quantity of Services (units)

Wraparound Services	Family Assistance	Family Support	Other Case Management	Respite	Targeted Case Management	Wraparound Services	Community Support Services	Grand Total
Quantity of Services FFS	63	429	2,151	1,192	717	215	5,763	10,530
Quantity of Services: MCO	0	257	3,984	1,023	416	484	6,263	12,427
Services per Child: FFS	0.1	0.8	4.3	2.4	1.4	0.4	11.4	20.8
Services per Child: MCO	0.0	0.3	4.5	1.1	0.5	0.5	7.0	13.9

Chart B



These statistics cannot be used on their own to determine the quality of wraparound services received by each population. There may be differences in each population that account for the different types of services; for example, the FFS population is predominantly rural and the MCO population is predominantly urban. As described above, DMH

has shifted service delivery preferences from targeted case management to community support services and services traditionally reported as targeted case management are now being provided as community support services. Initially this shift was seen in the FFS population, but the disparity in community support services between the FFS and MCO population reported in 2012 appears to have disappeared; both delivery systems are providing large and similar numbers of community support services and have shifted away from targeted case management. Additionally, more services are being provided overall, predominantly seen in the volume of community support services to both populations.

Study Question 3

What is the effect of CHIP on the number of children covered by private insurers?

The shift from private health insurance coverage to public coverage, known as crowd-out, is relatively difficult to measure. Crowd-out is difficult to identify because not all substitution of public for private coverage constitutes crowd-out. A crowd-out situation arises only if the actions taken—people substituting public for private coverage, or employers changing their insurance offerings—would not have occurred in the absence of the public program. If people would otherwise have become uninsured, enrolling in a public program does not constitute crowd-out.[14]

Generally, crowd-out refers to the substitution of publicly funded coverage for existing private coverage. Individuals may choose to forgo coverage available from their employer or in the individual market because publicly funded coverage is more affordable or more comprehensive. Alternatively, employers may choose to drop coverage for their employees once public coverage becomes available for them.

Different ways of defining crowd-out yield different results. Researchers define crowd-out in multiple ways, reflecting both their own perspectives and the idiosyncrasies of their data. All crowd-out estimates are expressed as ratios, but both the numerators and denominators of these ratios may measure different concepts.

The most common definition compares the reduction in the share of the population with private coverage to the increase in the share of the population with public coverage due to the expansion. Researchers using this definition attempt to estimate the changes due solely to the expanded eligibility over the period of years included in the study.

A congressional report on CHIP by Mathematica Policy Research from December 2011[15] concludes that crowd out in the CHIP program nationwide is less than expected:

> "While studies differ in their methods and data sources, existing evidence indicates that some level of crowd out is unavoidable but the magnitude of substitution is lower than many expected and in general concerns about CHIP substituting for private coverage have lessened over time…Estimates of substitution rates from population-based studies range from none to as much as 60 percent of the increase in public coverage from CHIP coming from reductions in private coverage (Dubay and Kenney 2009; Gruber and Simon 2008; Lee et al. 2008; Bansak and Raphael 2007; Davidoff et al. 2005; Hudson et al. 2005; LoSasso and Buchmueller 2004; Cunningham et al. 2002). More recent studies using longitudinal data sources and improved methods for handling cases with both public and private coverage…estimate substitution rates ranging from 7 to 30 percent."

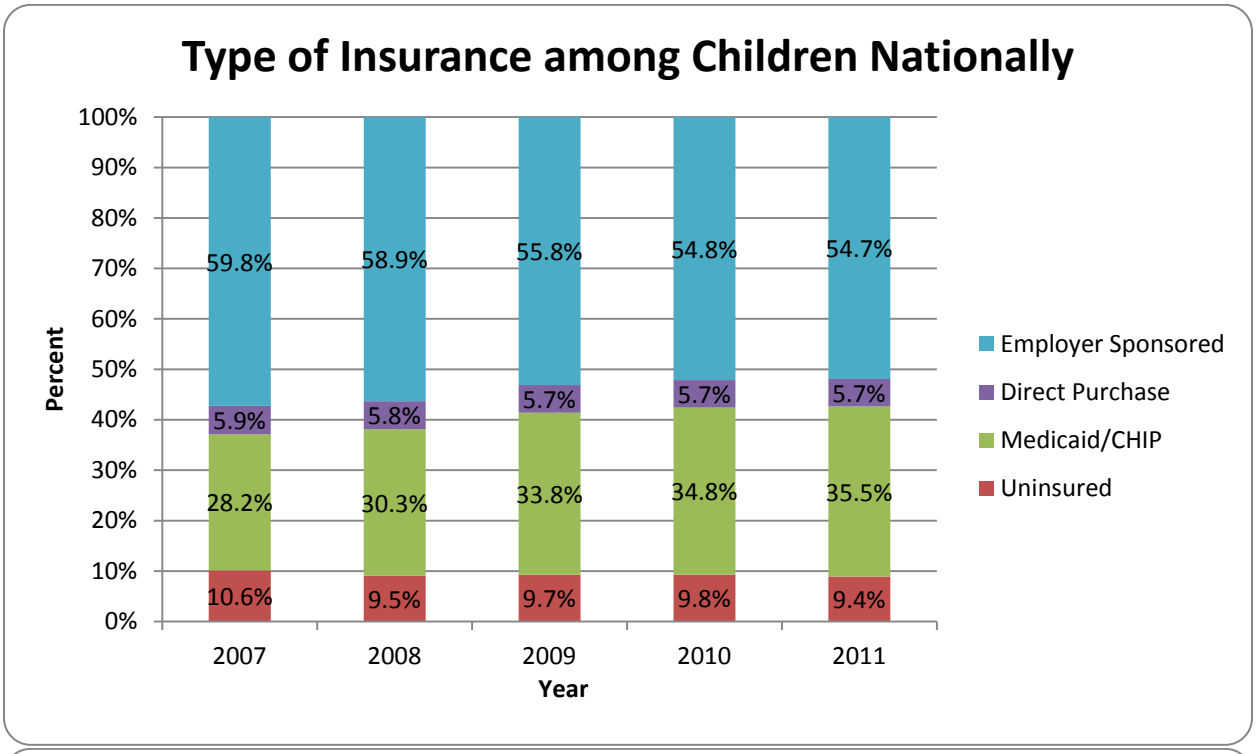
Since 2000 there has been a redistribution of insurance coverage by type both in Missouri and in the nation as a whole. Over this period there has been an overall decline in ESI. In Missouri from 2007 to 2011, ESI rates for kids have fluctuated; the 2011 rate (59.0%) was slightly higher than the 2007 rate (58.7%), while the national rate for kids dropped from 59.8% to 54.7% over the same period. Direct purchase of insurance for kids in Missouri, has fallen from 9.9% in 2010 to only 5.9% in 2011. Meanwhile, the combined U.S. census data for Medicaid and CHIP in Missouri shows a decrease from 31.5% in 2007 to 28.4% in 2011, even as the national figure has risen from 28.2% in 2007 to 35.5% in 2011. Finally, the rate of uninsured children in the state saw a jump in 2011 to 11.5%, up from 8.9% in 2010.

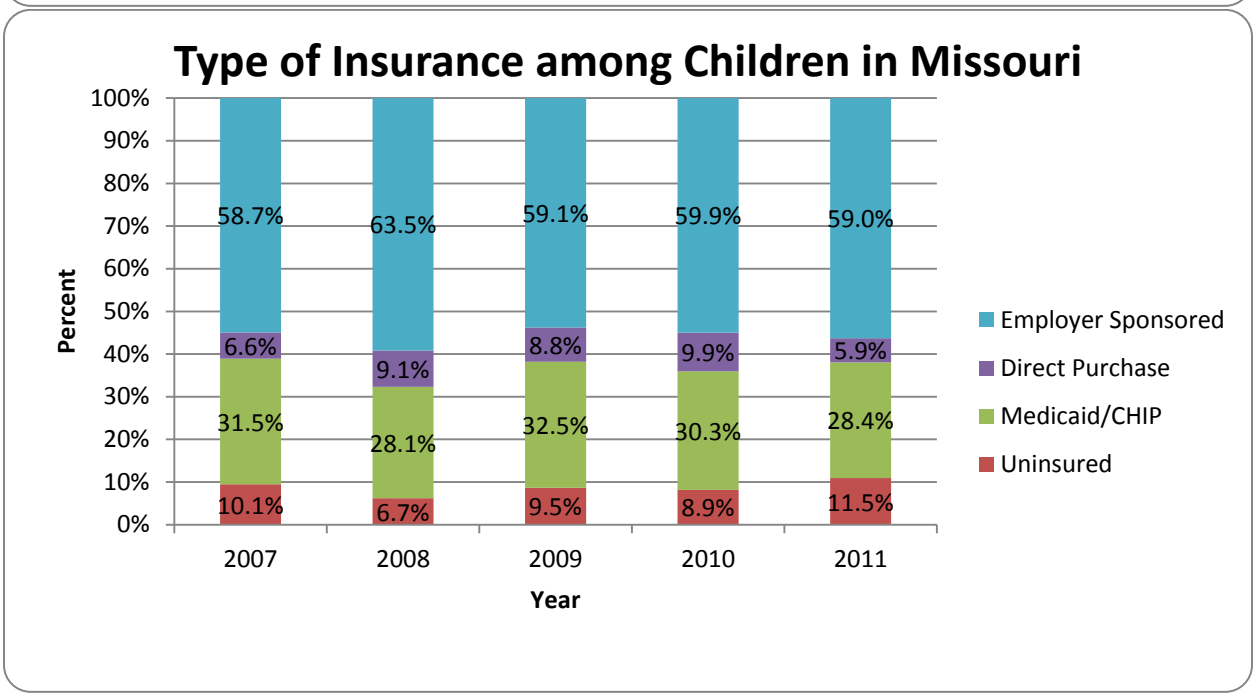
[14] Davidson, G., L. A. Blewett, & K. T. Call (June 2004). *Public Program crowd-out of private coverage: What are the issues?* The Robert Wood Johnson Foundation: Research Synthesis Report No. 5.

[15] Mathematica Policy Research (December 2011). *Children's Health Insurance Program: An Evaluation (1997-2010).*

This data suggests that the expansion of the CHIP program has had little to no impact on the number of children covered by private insurance, and that in fact Missouri is outpacing the rest of the nation in maintaining private health insurance rates, both in overall percentage and in trend in the last 5 years. The next two charts illustrate these 5 year trends.

Missouri Children Compared to U.S. Children, 2007-2011[16]





[16] Data is from the U.S. Census data which combines the Medicaid and CHIP programs. Columns do not add up to 100% in this data source, as people can be in more than one category. 2011 is the most recent year's data available for this measure. Children are aged 0-18. Data for the state of Missouri in 2010 appears slightly different than last year's report because the US Census Bureau adjusted data based on Census 2010-based population controls.

In addition, the Mathematica Policy Research report states that the percentage of children with incomes below 200% of FPL who are uninsured fell from 24.6% in 1997 to 15.3% in 2010. In analyzing the year by year rates, the report concluded that "[d]espite the recent increase in the number of low-income children…access to CHIP and Medicaid has kept the number of uninsured low-income children relatively flat during the post-recession time period."[17]

The modest crowd-out that did occur was overwhelmingly due to an individual or family involuntarily losing its private coverage or finding private coverage to be unaffordable. For example, 93 percent of those who previously had private coverage and enrolled in CHIP did so either due to the loss of private coverage (such as an employer no longer offering health coverage) or because the private coverage had become unaffordable, according to a rigorous ten-state analysis conducted as part of the congressionally mandated CHIP evaluation.

Much of the research on crowd-out in children's coverage finds that it is a significant factor only when states expand coverage further up the income scale, since children in moderate income families are more likely to have access to affordable employer-based coverage than their lower-income counterparts. Using a broad definition of crowd-out, CBO concludes that between 25 percent and 50 percent of children enrolled in CHIP — which covers children with incomes too high to qualify for Medicaid — previously had private health insurance.[18]

However, a recent CMS analysis by the Ohio State University College of Public Health[19] suggests the opposite: that the higher the state's eligibility threshold, the lower the crowd-out around the eligibility threshold. The report estimated threshold crowd-out levels for all 50 states, and found no evidence of threshold crowd-out in Missouri, or in any of the other 18 states with an eligibility threshold of 300% of FPL. The data also suggests much lower crowd-out overall than previous studies, with an overall state range of 0% to 18%. The report concludes:

> "The relatively small crowd-out at all income levels suggests that the discourse on children's health insurance programs should shift away from crowd-out towards the merits of public programs. Arguments for and against public children's health insurance programs should be based on benefits of publicly insuring children who otherwise would be uninsured, not on whether previously insured children drop private insurance and move to the public's payrolls."

The comparison of Missouri's population by insurance type and status to the national trends over the last 5 years (above) is a strong indicator that the policies in Missouri designed to minimize crowd-out, like the requirement for 6 prior months of no coverage before enrolling in CHIP, have been successful.

[17] Mathematica Policy Research (December 2011). *Children's Health Insurance Program: An Evaluation (1997-2010).*
[18] Congressional Budget Office, "The State Children's Health Insurance Program," May 2007.
[19] Medicare and Medicaid Research Review (2013, Volume 3, Number 3). *State Variability in Children's Medicaid/CHIP Crowd-Out Estimates.*

APPENDIX I:
Hospitalization and Emergency Room Utilization Rates by Payer/Program

APPENDIX I:
Hospitalization and ER Utilization Rates by Payer/Program (2000-2011)
Review period: January 1, 2012 - December 31, 2012
Data source: Missouri Department of Health and Senior Services (DHSS)

Asthma hospitalizations age < 19
Benchmark = 2.25/1,000 pop.
Healthy People 2000

Rates per 1000 pop.

Cal. Year	Population	*Eastern*	*Central*	*Western*	*Other*	***State***
2000	CHIP	5.2	1.8	3.9	1.7	**2.8**
2001	CHIP	3.0	1.8	2.3	1.3	**2.1**
2002	CHIP	2.5	1.8	2.9	1.2	**1.9**
2003	CHIP	2.9	1.3	2.7	1.6	**2.1**
2004	CHIP	2.9	1.2	1.6	1.2	**1.8**
2005	CHIP	2.6	0.8	1.6	1.0	**1.6**
2006	CHIP	2.3	1.0	2.3	0.9	**1.6**
2007	CHIP	3.5	0.7	1.9	0.8	**1.9**
2008	CHIP	4.6	1.4	2.1	1.2	**2.4**
2009	CHIP	4.8	1.8	3.2	1.6	**2.9**
2010	CHIP	3.6	1.0	1.6	1.2	**2.0**
2011	CHIP	4.0	0.5	1.6	1.0	**2.0**
Change from 2000 to 2011		**-24.2%**	**-69.4%**	**-58.5%**	**-38.0%**	**-30.7%**
2000	Non-MO HealthNet	1.3	0.9	1.1	0.9	**1.1**
2001	Non-MO HealthNet	1.1	0.7	1.0	0.7	**0.9**
2002	Non-MO HealthNet	1.2	0.8	0.8	0.8	**1.0**
2003	Non-MO HealthNet	1.1	0.8	1.0	0.7	**0.9**
2004	Non-MO HealthNet	1.3	1.1	0.8	0.8	**1.0**
2005	Non-MO HealthNet	1.3	0.6	1.0	0.8	**1.0**
2006	Non-MO HealthNet	1.2	0.8	0.9	0.7	**1.0**
2007	Non-MO HealthNet	1.2	0.6	0.9	0.7	**0.9**
2008	Non-MO HealthNet	1.4	0.7	0.7	0.7	**1.0**
2009	Non-MO HealthNet	1.1	0.7	0.6	0.6	**0.8**
2010	Non-MO HealthNet	1.2	0.5	0.6	0.6	**0.9**
2011	Non-MO HealthNet	1.1	0.4	0.6	0.5	**0.7**
Change from 2000 to 2011		**-20.0%**	**-48.9%**	**-45.9%**	**-40.6%**	**-32.2%**
2000	MO HealthNet	7.6	3.4	4.5	2.6	**4.6**
2001	MO HealthNet	4.9	2.9	3.2	2.9	**3.6**
2002	MO HealthNet	5.3	3.2	3.6	3.0	**3.9**
2003	MO HealthNet	5.3	2.7	3.1	2.8	**3.7**
2004	MO HealthNet	5.0	2.3	2.5	2.7	**3.4**
2005	MO HealthNet	4.6	2.6	3.0	2.1	**3.2**
2006	MO HealthNet	5.0	3.1	3.0	2.3	**3.4**
2007	MO HealthNet	5.0	2.3	2.9	2.5	**3.4**
2008	MO HealthNet	5.6	2.0	2.7	1.9	**3.2**
2009	MO HealthNet	5.2	2.4	3.4	2.3	**3.5**
2010	MO HealthNet	4.8	2.0	2.6	2.0	**3.0**
2011	MO HealthNet	4.9	1.9	2.3	1.8	**2.9**
Change from 2000 to 2011		**-36.1%**	**-45.3%**	**-48.2%**	**-33.5%**	**-37.1%**

APPENDIX I:
Hospitalization and Emergency Room Utilization Rates by Payer/Program

Asthma ER visits age < 19

Benchmark = 10/1,000 pop.
Healthy People 2000

Rates per 1000 pop.

Cal. Year	Population	*Eastern*	*Central*	*Western*	*Other*	***State***
2000	CHIP	24.7	9.0	19.5	7.1	**13.3**
2001	CHIP	17.7	5.1	13.5	7.8	**11.4**
2002	CHIP	19.5	11.5	17.4	8.2	**13.3**
2003	CHIP	18.4	6.6	17.5	8.3	**12.3**
2004	CHIP	15.7	5.6	12.0	6.5	**10.1**
2005	CHIP	18.5	6.8	11.8	7.1	**11.3**
2006	CHIP	19.9	8.1	13.7	6.3	**11.9**
2007	CHIP	20.8	5.4	16.0	6.2	**12.4**
2008	CHIP	22.5	7.5	18.1	5.4	**13.3**
2009	CHIP	24.7	7.5	16.2	8.4	**14.8**
2010	CHIP	23.5	6.8	16.0	7.5	**14.1**
2011	CHIP	21.1	6.3	13.4	6.5	**12.4**
Change from 2000 to 2011		**-14.6%**	**-29.7%**	**-31.0%**	**-8.4%**	**-6.9%**
2000	Non-MO HealthNet	7.6	3.0	6.1	3.3	**5.5**
2001	Non-MO HealthNet	6.6	3.0	6.0	3.3	**5.2**
2002	Non-MO HealthNet	6.9	2.9	6.1	3.3	**5.4**
2003	Non-MO HealthNet	6.6	2.8	5.5	3.2	**5.1**
2004	Non-MO HealthNet	6.9	3.2	5.1	3.5	**5.3**
2005	Non-MO HealthNet	6.8	3.1	4.8	2.8	**5.0**
2006	Non-MO HealthNet	6.2	3.1	4.9	3.1	**4.8**
2007	Non-MO HealthNet	5.7	2.5	5.0	3.1	**4.5**
2008	Non-MO HealthNet	6.2	2.7	4.6	3.1	**4.7**
2009	Non-MO HealthNet	6.0	2.9	4.2	2.9	**4.5**
2010	Non-MO HealthNet	5.6	2.3	4.1	2.6	**4.1**
2011	Non-MO HealthNet	5.8	2.6	4.8	2.8	**4.4**
Change from 2000 to 2011		**-23.9%**	**-13.7%**	**-20.6%**	**-15.4%**	**-19.9%**
2000	MO HealthNet	36.2	13.2	26.2	10.0	**21.7**
2001	MO HealthNet	28.1	10.7	22.8	9.7	**18.5**
2002	MO HealthNet	31.0	11.9	22.9	10.6	**19.9**
2003	MO HealthNet	28.0	11.6	20.2	13.4	**18.0**
2004	MO HealthNet	25.0	9.9	17.6	8.9	**16.0**
2005	MO HealthNet	26.5	11.1	17.8	8.8	**16.6**
2006	MO HealthNet	30.1	11.2	17.1	8.2	**17.3**
2007	MO HealthNet	28.1	11.2	18.7	8.6	**17.2**
2008	MO HealthNet	26.9	9.5	17.3	7.5	**16.3**
2009	MO HealthNet	28.8	11.1	18.5	8.1	**17.5**
2010	MO HealthNet	30.0	10.2	21.0	8.6	**18.5**
2011	MO HealthNet	29.0	9.4	19.0	8.9	**17.8**
Change from 2000 to 2011		**-19.7%**	**-29.0%**	**-27.6%**	**-11.6%**	**-17.7%**

APPENDIX I:
Hospitalization and Emergency Room Utilization Rates by Payer/Program

ER visits age < 19

Benchmark = 400/1,000 pop.
Health, United States, 2005, CDC

Rates per 1000 pop.

Cal. Year	Population	*Eastern*	*Central*	*Western*	*Other*	***State***
2000	CHIP	367.6	393.4	388.4	546.3	**463.4**
2001	CHIP	490.1	497.3	471.6	531.9	**506.1**
2002	CHIP	525.9	496.8	467.8	517.9	**508.1**
2003	CHIP	511.0	521.9	465.8	590.0	**508.7**
2004	CHIP	403.2	467.2	381.3	453.2	**426.2**
2005	CHIP	436.3	467.8	390.7	459.8	**439.8**
2006	CHIP	478.9	528.9	421.4	490.7	**477.1**
2007	CHIP	517.3	516.3	467.8	487.5	**495.2**
2008	CHIP	562.8	526.8	539.4	524.6	**539.1**
2009	CHIP	646.7	533.7	576.0	589.6	**595.3**
2010	CHIP	576.1	459.2	485.0	513.6	**518.4**
2011	CHIP	501.9	465.0	432.0	484.7	**475.6**
Change from 2000 to 2011		**36.5%**	**18.2%**	**11.2%**	**-11.3%**	**2.7%**
2000	Non-MO HealthNet	262.1	218.6	269.9	256.6	**257.9**
2001	Non-MO HealthNet	256.6	244.9	296.3	259.9	**265.0**
2002	Non-MO HealthNet	263.4	251.4	284.4	255.6	**264.7**
2003	Non-MO HealthNet	265.3	253.1	281.8	256.9	**265.5**
2004	Non-MO HealthNet	244.6	271.4	268.5	274.2	**260.4**
2005	Non-MO HealthNet	243.9	442.7	248.1	258.4	**251.0**
2006	Non-MO HealthNet	231.1	252.4	238.7	251.5	**240.3**
2007	Non-MO HealthNet	232.5	236.2	233.4	253.5	**238.9**
2008	Non-MO HealthNet	227.7	226.3	234.6	309.9	**247.1**
2009	Non-MO HealthNet	216.8	216.6	219.9	258.6	**227.0**
2010	Non-MO HealthNet	196.4	182.0	189.0	226.0	**199.7**
2011	Non-MO HealthNet	214.0	196.9	226.0	250.3	**223.1**
Change from 2000 to 2011		**-18.3%**	**-9.9%**	**-16.3%**	**-2.5%**	**-13.5%**
2000	MO HealthNet	713.6	681.7	637.0	656.8	**676.0**
2001	MO HealthNet	642.4	704.4	628.4	709.9	**671.0**
2002	MO HealthNet	674.9	710.0	581.7	708.6	**673.2**
2003	MO HealthNet	691.3	754.9	618.1	737.8	**700.7**
2004	MO HealthNet	596.3	700.9	557.1	654.1	**620.5**
2005	MO HealthNet	602.1	765.1	570.7	688.0	**662.5**
2006	MO HealthNet	696.9	547.5	575.4	697.4	**680.2**
2007	MO HealthNet	709.8	769.4	623.6	719.6	**702.0**
2008	MO HealthNet	717.6	727.6	711.6	703.8	**713.4**
2009	MO HealthNet	794.2	744.9	748.2	756.8	**765.6**
2010	MO HealthNet	740.8	654.7	666.6	684.8	**695.0**
2011	MO HealthNet	703.9	659.0	632.5	730.8	**690.5**
Change from 2000 to 2011		**-1.4%**	**-3.3%**	**-0.7%**	**11.3%**	**2.1%**

APPENDIX I:
Hospitalization and Emergency Room Utilization Rates by Payer/Program

Preventable hospitalizations age < 19

Benchmark = 7.2/1,000 pop.
Kozak, Hall and Owings.

Rates per 1000 pop.

Cal. Year	Population	*Eastern*	*Central*	*Western*	*Other*	***State***
2000	CHIP	10.5	8.0	9.5	9.8	**9.7**
2001	CHIP	9.9	8.8	6.7	10.5	**9.4**
2002	CHIP	6.8	9.2	8.9	10.0	**8.9**
2003	CHIP	6.7	6.6	8.2	9.9	**8.0**
2004	CHIP	7.0	7.0	6.9	8.8	**7.7**
2005	CHIP	7.5	6.4	6.2	8.4	**7.5**
2006	CHIP	8.2	8.1	6.3	9.2	**8.2**
2007	CHIP	8.7	6.3	7.7	7.7	**7.8**
2008	CHIP	11.1	8.3	7.3	8.9	**9.1**
2009	CHIP	13.4	8.0	10.0	10.5	**10.9**
2010	CHIP	10.7	7.1	8.4	9.0	**9.1**
2011	CHIP	11.1	8.0	6.2	8.3	**8.7**
Change from 2000 to 2011		**5.2%**	**0.7%**	**-35.3%**	**-14.6%**	**-10.7%**
2000	Non-MO HealthNet	5.5	4.9	4.9	5.7	**5.4**
2001	Non-MO HealthNet	6.0	5.6	5.0	6.1	**5.8**
2002	Non-MO HealthNet	5.9	6.4	5.1	6.2	**5.9**
2003	Non-MO HealthNet	5.7	6.1	4.7	5.8	**5.5**
2004	Non-MO HealthNet	6.1	6.3	4.7	6.2	**5.8**
2005	Non-MO HealthNet	6.5	7.0	4.9	6.5	**6.2**
2006	Non-MO HealthNet	5.9	5.8	4.5	5.9	**5.5**
2007	Non-MO HealthNet	5.9	5.2	4.6	5.0	**5.6**
2008	Non-MO HealthNet	6.0	5.7	3.9	5.4	**5.3**
2009	Non-MO HealthNet	6.5	5.8	3.9	5.7	**5.6**
2010	Non-MO HealthNet	5.8	5.1	3.7	4.4	**4.9**
2011	Non-MO HealthNet	5.8	4.9	4.2	5.1	**5.1**
Change from 2000 to 2011		**5.3%**	**0.1%**	**-14.7%**	**-11.3%**	**-4.4%**
2000	MO HealthNet	17.8	15.0	13.5	16.6	**16.3**
2001	MO HealthNet	14.9	15.0	12.1	19.3	**16.1**
2002	MO HealthNet	13.7	14.8	12.0	18.2	**15.2**
2003	MO HealthNet	13.5	13.7	10.4	16.8	**14.2**
2004	MO HealthNet	12.8	12.5	10.6	16.1	**14.0**
2005	MO HealthNet	13.3	14.5	11.3	17.0	**14.5**
2006	MO HealthNet	14.3	14.7	11.3	17.7	**15.0**
2007	MO HealthNet	14.3	13.6	11.1	17.1	**14.7**
2008	MO HealthNet	16.5	13.5	10.6	17.1	**15.0**
2009	MO HealthNet	17.5	15.8	12.6	19.0	**16.7**
2010	MO HealthNet	15.2	12.4	11.0	15.7	**14.1**
2011	MO HealthNet	14.6	11.6	9.3	13.4	**12.6**
Change from 2000 to 2011		**-18.2%**	**-22.3%**	**-30.9%**	**-19.3%**	**-22.3%**

APPENDIX II:

DMH-DSS Wrap-Around Service Codes and Titles

Review period: January 1, 2012 - December 31, 2012

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Wrap-Around Services (for children with SED and those affected by Substance Abuse)		
Procedure Code	**Description**	**Type**
02500H	FAMILY SUPPORT	SED WA
20000H	CASE MNGMT-BACHELOR IND	SED WA
20001H	CASE MNGMT-PARAPROFESS IND	SED WA
20003H	CASE MNGMT-PHYSICIAN IND	SED WA
20004H	CASE MNGMT-LIC QMHP IND	SED WA
20005H	CASE MNGMT-LIC PSYCH IND	SED WA
20006H	CASE MNGMT-AD PR NURSE IND	SED WA
20008H	CASE MGMT-CHILD PSYCHITRST	SED WA
39601W	WRAP-AROUND SRVCS-YOUTH IND	SED WA
39603W	WRAP-AROUND SRVCS ADULT AS	SED WA
440001	RESPITE CARE - IND. -	SED WA
44001H	RESPITE CARE - INDIVIDUAL	SED WA
49004H	CHILD/ADOLES FAMILY ASSIST	SED WA
Y3127K	TARGET CASE MGMT (TCM) YTH	SED WA
Y3128K	TARGET CASE MGMT (TCM) YTH	SED WA
H0036	COMMUNITY SUPPORT SERVICES	SED WA

SED WA = SED Wrap-Around Service